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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/574,790

Applicant(s)

LAAKSONEN ET AL.

Examiner

BRIAN R. SLAWSKI

Art Unit

1745

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-7 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-912)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

LABEL LAMINATE AND A METHOD FOR MANUFACTURING A LABEL LAMINATE

Detailed Action

1. Applicant's request for reconsideration filed January 3, 2011, was received. Claim 4 was amended.
2. The text of those sections of Title 35, U.S. Code, not included in this action can be found in the prior Office Action issued on August 3, 2009.

Claim Rejections—35 USC §103

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyohara et al. (US 2002/0022102) in view of Nandy et al. (US 2001/0030020), Steidinger (US 5,700,536), Ghavt (GB 1,420,743), and Takemoto et al. (EP 0 353 972).

Regarding claim 4, Kiyohara et al. teach a method for making a printable label laminate [0001, 0047] optionally without a release layer, the laminate comprising first and second label material layers 11 and 12 each having a face side and a back side, the method comprising: forming adhesive areas directly on the surface of each material layer 11, 12, in a pattern such that adhesive areas 13, 14 and non-adhesive (i.e., adhesive-free) areas 15, 16 alternate on the face side of each material layer; aligning the adhesive areas 13 on the first layer 11 with the non-adhesive areas 16 on the second layer 12 and aligning the non-adhesive areas 15 on the first layer 11 with the adhesive areas 14 on the second layer 12; and attaching the face side of the two layers 11, 12 to each other in this alignment (Abstract; Fig. 1-3; [0001, 0007-0009, 0018, 0033-0036]). Kiyohara et al. teach that, while separate strip layers can be formed on the face

sides of the label material layers 11, 12 in their non-adhesive areas 15, 16, in an alternative embodiment, “the one-side label base material 11 works as a strip layer of the other-side label base material 12. On the other hand, the other-side label base material 12 works as a strip layer of the one-side label base material 11. Accordingly, no strip paper sheet needs to be provided.” That is, the adhesive areas 13, 14 can be attached directly to non-adhesive areas on the label material layers 11, 12 themselves, so that each label material layer acts as a strip layer for the opposing label material layer, without the use of a separate release layer [0037-0038]. Kiyohara et al. do not teach performing any special treatment on the adhesive-free areas 15, 16 of the label material layers 11, 12 in order to achieve this effect [0037-0038], so that it would have been obvious to one of ordinary skill in the art to leave the adhesive-free areas 15, 16 untreated.

Kiyohara et al. are silent as to the composition of the label material layers and adhesive. However, it would have been obvious to one of ordinary skill in the art to ensure that each material layer has the properties taught by Kiyohara et al.—i.e., is printable, adherable, and able to serve directly as the strip layer for the other. Nandy et al. teach that polyethylene films are commonly used as a printable label material [0001-0002], and make a printed label laminate by extruding from nozzle 40 a hot-melt pressure-sensitive adhesive (PSA) onto a strip layer 50, pressing the adhesive-coated strip layer onto a polyethylene film 80 to form a label laminate, then printing images on the polyethylene film to form labels (Fig. 1-2; [0008, 0009, 0014, 0016, 0022]). One of ordinary skill in the art would have learned from Nandy et al. that a polyethylene film

and a hot-melt PSA would be suitable materials for the label material layers 11, 12 and adhesive of Kiyohara et al., polyethylene being commonly used for printable labels and adherable to strip layers via hot-melt PSA.

Kiyohara et al. are silent as to how their adhesive is applied. Nandy et al. teach extruding a uniform layer of hot-melt pressure-sensitive adhesive, but note that it is also known in the art to apply hot-melt PSA in an array of dots onto adhesive labels [0006]. Further, Steidinger makes a label laminate by adhering a label material layer to a strip layer with a hot-melt PSA 124, applied to either layer by a hot melt extruding or screen printing unit 38/43, noting that both kinds of units are well known in the art for applying hot-melt adhesives (Abstract; Fig. 6, 11; col. 3, L. 15-24; col. 4, L. 66-67; col. 5, L. 1-4, L. 7-13, L. 36-43). Ghavt also teaches that a hot-melt PSA can be printed by several techniques such as nozzle-extrusion and screen printing, where the latter produces discrete three-dimensional adhesive dots 7 on the sheet (Fig. 1, 2; p. 1, L. 8-12, L. 34-51; p. 2, L. 41-48, L. 88-90, L. 98-113; p. 3, L. 73-81, L. 105-112, L. 121-126; p. 4, L. 1-10, L. 63-67). It would have been obvious to one of ordinary skill in the art to form the adhesive areas 13, 14 of Kiyohara et al. by screen printing three-dimensional dots of the hot-melt PSA taught by Nandy et al., because Nandy et al., Steidinger, and Ghavt teach that it is well known to apply such adhesives to labels by screen printing an array of dots.

Ghavt further notes that the carrier sheet should have a release surface able to transfer the PSA printed thereon onto another object, and that plastic films having an inherently low degree of affinity for the adhesive, such as polyethylene, may be used

without silicones for this purpose (p. 1, L. 34-66). Hence, one of ordinary skill in the art would have understood from Nandy et al. and Ghavt that polyethylene films would be well suited for both label material layers 11, 12 of Kiyohara et al., being printable and having sufficiently modest affinity for hot-melt pressure-sensitive adhesives as to serve as each other's strip layers without requiring additional release agents. As noted by Applicant in the instant specification (p. 3, L. 24-25), the non-adhesive areas 14, 16 of such polyethylene films applied in the method of Kiyohara et al. will inherently have surface energy of at least 25 dynes.

Ghavt does not fully describe the three-dimensional shape of the screen-printed hot-melt PSA dots 7, but notes that the adhesive should be sufficiently viscous to maintain its physical shape upon printing, without slumping or flowing (p. 2, L. 102-121). Takemoto et al. similarly teach screen printing hot-melt pressure-sensitive adhesive dots on any of various flexible paper or plastic backing materials to produce an easily peelable adhesive tape (Abstract; Fig. 3, 4; col. 1, L. 1-3; col. 3, L. 12-15; col. 5, L. 54-57; col. 6, L. 51-58; col. 7, L. 1-5, L. 24-26, L. 35-38). Takemoto et al. teach that by screen printing the adhesive dots 30 in hemispherical form so that the area that contacts the backing 14 is larger than the area that contacts the surface 40 to which the backing is adhered, the tape can be more easily and less destructively peeled from the surface 40 (Fig. 5, 8; col. 3, L. 21-24; col. 4, L. 21-33; col. 9, L. 35-52). It would have been obvious to one of ordinary skill in the art to screen-print the adhesive areas 13, 14 of Kiyohara et al. in the form of the hemispherical dots taught by Takemoto et al., in order to make the label material layers 11 and 12 more easily peelable from each other.

4. Regarding claim 5, Ghavt teaches in particular that a rotary screen printing method is preferred for applying regular patterns of pressure-sensitive adhesive 7 to a flexible carrier sheet 2 (p. 2, L. 88-90, L. 98-114; p. 3, L. 100-126; p. 4, L. 1-10; Fig. 1, 2), so that it would have been obvious to one of ordinary skill in the art to apply the adhesive areas 13, 14 to the label material layers 11, 12 of Kiyohara et al. using this rotary screen method.

Response to Arguments

5. Applicant's arguments filed on January 3, 2011, have been fully considered but they are not persuasive. Applicant argues that Kiyohara et al. in paragraph [0033] teaches that the label base materials 11 and 12 include strip layers 15 and 16 opposite the adhesive layers 13 and 14. The examiner acknowledges this teaching, but points again to paragraph [0037] of Kiyohara et al., which explains that, alternatively, the label base materials may act directly as strip layers for the adhesive layers, without need of separate strip layers 15, 16 formed on the label base materials: "In an unused state of the above-described label 10 according to the present embodiment, the one-side label base material 11 works as a strip layer of the other-side label base material 12. On the other hand, the other-side label base material 12 works as a strip layer of the one-side label base material 11."

What Kiyohara et al. do not teach is a particular composition of label base material, adhesive composition, or method of applying the adhesive to achieve this

embodiment (or any of the disclosed embodiments). Hence, one of ordinary skill in the art would have looked to the prior art to determine a suitable combination of label base material, adhesive, and adhesive application technique that could meet the requirements of Kiyohara et al.: printable label base materials that can be adhered to but also peeled from each other without need of separate release layers (i.e., where each untreated label base material itself acts as the other's release layer).

Applicant argues that Nandy et al. do not provide these teachings because their process comprises applying a hot-melt adhesive layer onto a release liner and transfer coating the adhesive from the release liner onto a polyethylene film. The examiner acknowledges that this is the process taught by Nandy et al., as described in paragraph 3 above. However, the examiner cites Nandy et al. as teaching that polyethylene is a known printable label base material [0001-0002] and hot-melt pressure-sensitive adhesives are suitable for releasably attaching a polyethylene label base to a strip layer. In light of Nandy et al., one of ordinary skill in the art would have considered polyethylene film and a hot-melt PSA a potential label base/adhesive combination for Kiyohara et al., in which adhesive-coated printable label bases are releasably adhered to each other as strip layers. While Nandy et al. do not teach that polyethylene can be a strip layer, they do not preclude this possibility.

That polyethylene films can act as strip layers for hot-melt PSAs is supplied by Ghavt (p. 1, L. 34-66; p. 3, L. 73-81). Hence, the combination of Nandy et al. and Ghavt teaches that polyethylene films can serve as printable substrates for adhesive labels, substrates for a hot-melt PSA joining these labels to a strip layer, and also strip layers

for this adhesive. Thus, while Applicant correctly notes that neither Steidinger nor Ghavt explicitly teaches the whole of the inventive double-sided adhesive labels, the concept thereof is taught by Kiyohara et al. and the materials taught by Nandy et al. and Ghavt.

An appropriate method of applying the adhesive is provided by Ghavt, Steidinger, and Takemoto et al., all of whom teach screen printing hot-melt PSAs onto a substrate. While Applicant argues that one of ordinary skill in the art would not look to Takemoto et al. for guidance in applying adhesive to labels for double-sided printing, the examiner disagrees. One of ordinary skill in the art would have recognized that the peelable adhesive bandages of Takemoto et al. are analogous to the peelable adhesive labels of Kiyohara et al., and that the lessons of Takemoto et al. on applying the adhesive to allow facile and nondestructive peeling of the bandages from a surface would be applicable to ensuring proper separation of the label material layers 11 and 12 of Kiyohara et al. from each other.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN R. SLAWSKI whose telephone number is (571)270-3855. The examiner can normally be reached on Monday to Thursday, 7:30 a.m. to 5:00 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip Tucker, can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian R. Slawski/
Examiner, Art Unit 1745

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B.R.S.

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1745